

Table 31.1
Benign Brain Tumors

A Comparison of Benign/Borderline and Malignant Brain Tumors
Counts, Percents and Age-Adjusted Incidence Rates^a by WHO Histology Grouping, 2005-2009

WHO Histology Grouping	Benign/Borderline			Malignant		
	Count	Percent	Rate	Count	Percent	Rate
Brain						
Diffuse astrocytoma (protoplasm, fibrillary)	-	-	-	417	1.4%	0.1
Anaplastic astrocytoma	-	-	-	1,578	5.4%	0.4
Glioblastoma	-	-	-	13,130	45.1%	3.2
Pilocytic astrocytoma	-	-	-	1,141	3.9%	0.3
Unique astrocytoma variants	291	0.5%	0.1	115	0.4%	0.0
Oligodendrogloma	-	-	-	1,146	3.9%	0.3
Anaplastic oligodendrogloma	-	-	-	473	1.6%	0.1
Ependymoma/anaplastic ependymoma	-	-	-	577	2.0%	0.1
Ependymoma variants	-	-	-	-	-	-
Mixed glioma	-	-	-	832	2.9%	0.2
Astrocytoma, NOS	-	-	-	1,612	5.5%	0.4
Glioma, NOS	33	0.1%	0.0	1,578	5.4%	0.4
Choroid plexus	187	0.3%	0.0	36	0.1%	0.0
Neuroepithelial	-	-	-	71	0.2%	0.0
Neuronal/glial, neuronal and mixed	833	1.5%	0.2	70	0.2%	0.0
Embryonal/primitive/medulloblastoma	-	-	-	960	3.3%	0.2
Nerve sheath	301	0.5%	0.1	18	0.1%	0.0
Meningioma	386	0.7%	0.1	-	-	-
Hemangioma and hemangioblastoma	1,470	2.6%	0.4	-	-	-
Germ cell tumors, cysts, and heterotopias	85	0.2%	0.0	122	0.4%	0.0
Chordoma/chondrosarcoma	-	-	-	28	0.1%	0.0
Craniopharyngioma	84	0.2%	0.0	-	-	-
Neoplasm, unspecified	1,235	2.2%	0.3	1,273	4.4%	0.3
Other histologies ^b	18	0.0%	0.0	-	-	-
Intracranial Meninges						
Neuroepithelial	-	-	-	-	-	-
Nerve sheath	-	-	-	-	-	-
Meningioma	27,882	50.1%	6.7	401	1.4%	0.1
Hemangioma and hemangioblastoma	22	0.0%	0.0	-	-	-
Chordoma/chondrosarcoma	-	-	-	-	-	-
Neoplasm, unspecified	60	0.1%	0.0	-	-	-
Other histologies ^b	-	-	-	-	-	-
Cranial Nerves and Other CNS						
Glioblastoma	-	-	-	-	-	-
Pilocytic astrocytoma	-	-	-	56	0.2%	0.0
Astrocytoma, NOS	-	-	-	-	-	-
Glioma, NOS	-	-	-	181	0.6%	0.0
Neuronal/glial, neuronal and mixed	-	-	-	-	-	-
Nerve sheath	5,938	10.7%	1.4	26	0.1%	0.0
Meningioma	24	0.0%	0.0	-	-	-
Hemangioma and hemangioblastoma	26	0.0%	0.0	-	-	-
Germ cell tumors, cysts, and heterotopias	-	-	-	-	-	-
Chordoma/chondrosarcoma	-	-	-	-	-	-
Neoplasm, unspecified	48	0.1%	0.0	-	-	-
Other histologies ^b	-	-	-	-	-	-

Source: SEER 18 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana, New Jersey and Georgia excluding ATL/RG).

^a Count and percent may not sum to total due to suppression and rounding.

Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

The histologic groupings exclude lymphomas, mesotheliomas, and Kaposi Sarcoma.

^b Includes histologies not included in current groupings.

- Statistic not shown due to fewer than 16 cases during the time period.

Table 31.1 - continued
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WHO Histology Grouping	Benign/Borderline			Malignant		
	Count	Percent	Rate	Count	Percent	Rate
Sellar Region						
Glioblastoma	-	-	-	-	-	-
Pilocytic astrocytoma	-	-	-	-	-	-
Ependymoma/anaplastic ependymoma	-	-	-	-	-	-
Glioma, NOS	-	-	-	-	-	-
Pineal parenchymal	71	0.1%	0.0	93	0.3%	0.0
Embryonal/primitive/medulloblastoma	-	-	-	-	-	-
Nerve sheath	-	-	-	-	-	-
Meningioma	-	-	-	-	-	-
Germ cell tumors, cysts, and heterotopias	-	-	-	167	0.6%	0.0
Chordoma/chondrosarcoma	-	-	-	-	-	-
Pituitary	12,882	23.1%	3.1	37	0.1%	0.0
Craniopharyngioma	637	1.1%	0.2	-	-	-
Neoplasm, unspecified	318	0.6%	0.1	36	0.1%	0.0
Other histologies ^b	-	-	-	-	-	-
Spinal Cord						
Diffuse astrocytoma (protoplasm, fibrillary)	-	-	-	-	-	-
Anaplastic astrocytoma	-	-	-	22	0.1%	0.0
Glioblastoma	-	-	-	27	0.1%	0.0
Pilocytic astrocytoma	-	-	-	62	0.2%	0.0
Unique astrocytoma variants	-	-	-	-	-	-
Ependymoma/anaplastic ependymoma	-	-	-	453	1.6%	0.1
Ependymoma variants	385	0.7%	0.1	-	-	-
Mixed glioma	-	-	-	-	-	-
Astrocytoma, NOS	-	-	-	82	0.3%	0.0
Glioma, NOS	-	-	-	17	0.1%	0.0
Neuronal/glial, neuronal and mixed	68	0.1%	0.0	20	0.1%	0.0
Embryonal/primitive/medulloblastoma	-	-	-	18	0.1%	0.0
Nerve sheath	608	1.1%	0.1	36	0.1%	0.0
Meningioma	34	0.1%	0.0	-	-	-
Hemangioma and hemangioblastoma	178	0.3%	0.0	-	-	-
Chordoma/chondrosarcoma	-	-	-	19	0.1%	0.0
Neoplasm, unspecified	59	0.1%	0.0	16	0.1%	0.0
Other histologies ^b	-	-	-	-	-	-
Spinal Meninges						
Ependymoma/anaplastic ependymoma	-	-	-	-	-	-
Neuronal/glial, neuronal and mixed	-	-	-	-	-	-
Nerve sheath	42	0.1%	0.0	-	-	-
Meningioma	1,298	2.3%	0.3	-	-	-
Hemangioma and hemangioblastoma	-	-	-	-	-	-
Neoplasm, unspecified	-	-	-	-	-	-
Other histologies ^b	-	-	-	-	-	-
Total	55,705	100.0%	13.4	29,139	100.0%	7.0

Source: SEER 17 areas (San Francisco, Connecticut, Detroit, Hawaii, Iowa, New Mexico, Seattle, Utah, Atlanta, San Jose-Monterey, Los Angeles, Alaska Native Registry, Rural Georgia, California excluding SF/SJM/LA, Kentucky, Louisiana and New Jersey).

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^a Rates are age-adjusted to the 2000 US Std Population (19 age groups - Census P25-1130).

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